



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Authorize the City Manager to Execute a Contract with ACRT, Inc. for the Urban Forest Management Plan and Software; and Appropriate Funds

MEETING DATE: October 17, 2001

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council authorize the City Manager to execute a contract with ACRT, Inc. for the Urban Forest Management Plan and software; and appropriate the necessary funds for the contract.

BACKGROUND INFORMATION: The City of Lodi Public Works Department Street Division manages the City's trees located in the public right-of-way and at City facilities (except parks). A modern, computerized tree inventory and management system would enable our Tree Operations Supervisor to more effectively manage our approximately 8,000 trees. Implementation of a computerized inventory and management system was approved in the 1999/00 budget at \$31,000, but was delayed, and costs have increased.

ACRT was selected to assist in the effort (Exhibit A). They are a leader in this field and have offices in Lodi. ACRT will evaluate all street trees for size, health, and value. This evaluation would facilitate management of existing trees through tracking, scheduling, and documentation of maintenance. ACRT is going to survey the trees with International Society of Arborists (ISA)-certified arborists. This will provide the City with a very accurate assessment of our urban forest and its immediate and long-range needs. Additionally, this program will be used for planning replacement of problematic trees, planning for future improvements, minimizing the spread of potential disease and insect infestations, budget analysis and forecasts. A staff check of ACRT's California references provided very favorable endorsements.

A properly managed urban forest is a valuable asset to our community, including providing aesthetic appeal, psychological uplift, historical value, oxygen generation, climate control (absorbing incident solar radiation, cooling through evapotranspiration, blocking radiant heat loss from homes, deflecting winds), minimizing air pollution by removing both solid and gaseous particles, reducing noise pollution, and enhancing property values. The requested appropriation allows for software, training, and inventory work. An allowance was made for identification of potential tree-planting sites, thus the exact cost is unknown. The program will also be available to the Parks Division to evaluate and manage park trees. An optional cost to evaluate park trees and include them in the initial implementation is also shown as requested by the City Council at the October 9, 2001 Shirtsleeve Session.

FUNDING:	Appropriation:	Street Fund	\$44,000
	Estimated Cost:	Street Trees (approximately 8,000)	\$28,800
		Management Plan	3,500
		Software	5,973
		Training	2,300
		Contingencies (additional trees, sites, misc.)	<u>3,427</u>
			\$44,000
	Optional:	Park Trees (approximately 2,770)	\$10,000
		Parks Minor Capital (has not yet been appropriated)	
	Budgeted:	1999/01 budget (Page E-8, Capital Improvement Budget)	
	Funding Available:	<u>Vicky McAthie</u>	
		Vicky McAthie, Finance Director	

Richard C. Prima, Jr.
Public Works Director

Roger Baltz
Parks and Recreation Director

Attachment

cc: George Bradley, Street Superintendent
Steve Dutra, Parks Superintendent

Ray Fye, Tree Operations Supervisor
ACRT, Inc.

Roger Baltz, Parks and Recreation Director

APPROVED: _____

Paul Dixon Flynn

-- City Manager

Tree Inventory, Management Plan & Other Services for the City of Lodi, CA



August 22, 2001

ACRT, Inc.
730 South Beckman Road
P.O. Box 1540
Lodi, CA 95241-1540

Phone: 877-227-8978
Fax: 209-367-4196
rneville@acrtinc.com



COST PROPOSAL

Task 1: Tree Inventory

- Tree Inventory using Tree Manager™ for Windows® Software \$3.10/tree*
- with GPS ± 3 ft \$3.60/tree*

³Task 2: Tree Management Plan

Includes separate plans for streets and parks \$3,500.00

²Task 3: Tree Manager™ for Windows® Software \$5,973.00

Options:

On site training (8 hours), installation and 5 copies of manual \$2,300.00

~~Annual Technical Support (includes upgrades) \$4,800.00~~

~~or technical support may be purchased hourly at \$ 89.00/hour~~

} will evaluate
in FY 01/02
Budget

~~Task 4: Contract Forester~~

~~Contract Foresters hourly at \$ 59.00/hour*~~

~~Task 5: Computer Hardware~~

- ~~• Fujitsu 3400 Stylistic Handheld \$4,500 to \$5,125.00
(depending on options)~~

* A 20% discount has been applied to each of the Tasks noted.

Prices are effective until December 31, 2000.

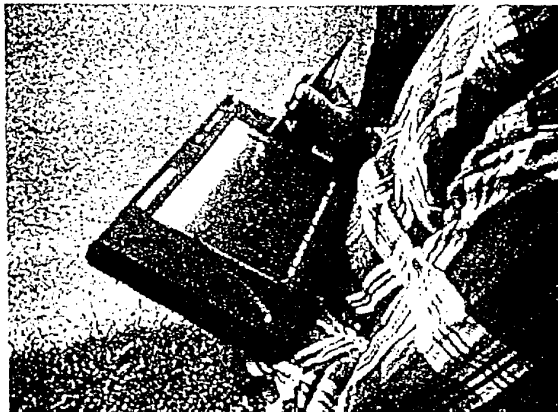
TASK 1: TREE INVENTORY

A. Data Collection Specifications

ACRT will inventory all trees and planting sites on the boulevards and parks in the City of Lodi. Wooded areas will be inventoried specifically for hazard trees or if there is a situation that demands clearance trimming, only at the request of City of Lodi staff.

The inventory will include the following types of information:

- Location
- Tree Identification
- Planting Site Identification
- Size Classification
- Condition Rating
- Maintenance Needs
- Clearance Trim
- Utilities



- Special Work Considerations

B. Data Collection Methodology and Inventory Integrity

ACRT will collect data on hand-held computers using Tree Manager for Windows software. The data can then be electronically transferred to ACRT's computers for processing. This procedure eliminates the need to keypunch data from handwritten field notes and has proven to be a rapid, reliable means of data collection.

- ACRT collects your data using hand-held microcomputers
- A complete list of street and park names are pre-loaded onto the computer
- Quality control checks for tree identification are built into the hand-held computer program
- The date and the data collector's initials are automatically recorded on the computers

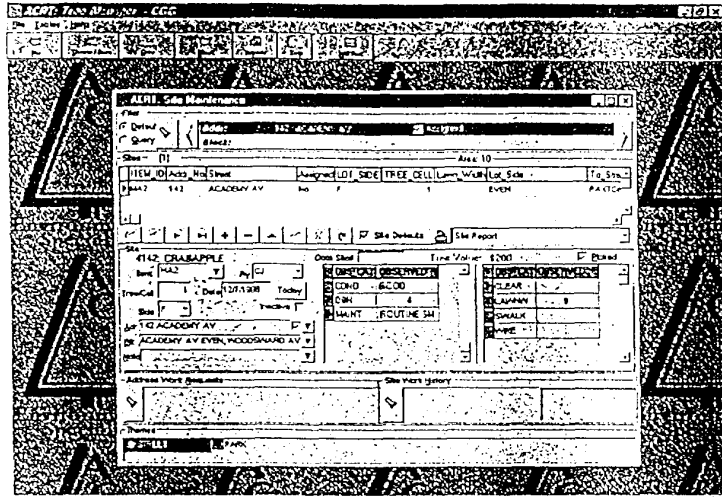


- All inventories are backed up daily to ACRT Western Division's main computer

- ACRT conducts a 10 percent quality control check at the start of an inventory
- ACRT uses well trained and experienced personnel to collect the data

TASK 2: TREE MANAGER™ FOR WINDOWS® SOFTWARE

Tree Manager™ for Windows® is an urban forestry management program that allows you to electronically maintain information about your urban forest, including work performed on trees, requests for service, and to perform daily forestry operations.



A. Standard Primary Functions of Tree Manager

- Displays all pertinent information regarding one tree (tree/site information, work history information, and service request information)
- Maintains information on removed trees for liability purposes, population analysis, and species costing
- Allows the user to enter a virtually unlimited number of work history entries per tree
- Stores comments for any tree, work history, or service requests
- Calculates total tree values
- Can automatically calculate cost information for crews, equipment, and materials
- an extensive user friendly on-line help system
- Permits electronic data entry from some hand-held computers
- Has option to download to computer for field inspections and upload from hand-held to PC to update (add, delete, or change) information in the PC's master data files
- Work history windows allow users to input labor rates and equipment costs
- Tree Manager for Windows® includes

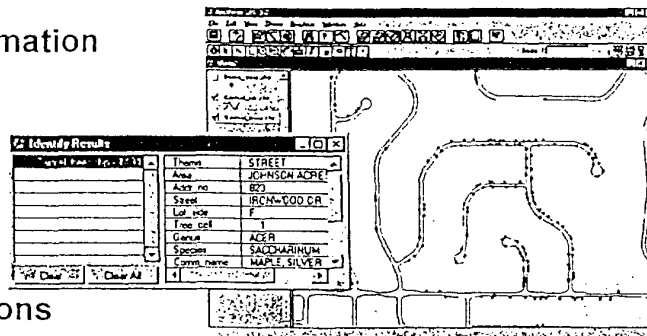
B. Minimum System Requirements

- Intel Pentium 200 MHz processor
- 32 megabytes of RAM
- 800 megabytes of free disk space,
- Windows® 95/98/NT/2000

For optimal performance, ACRT recommends a Pentium 500 MHz or faster, 2-gig free disk space or more, 256 megabytes of RAM, Windows® 98/2000, and a 4 megabyte graphics accelerator card.

C. Interface to Geographical Information Systems

Tree Manager software can be used to interface to the City's Geographical Information Systems (GIS) such as ArcView®, Intergraph®, or MapInfo®.



D. Tree Manager Terms & Conditions

All clients are required to sign an agreement (Attachment). This agreement specifies that the software may be used by the City and cannot be sold or given to other entities.

E. Installation and Training

ACRT believes that training, continuing support and development are integral parts of any tree inventory package. ACRT can provide one to two day workshops for Tree Manager and/or ArcView®. The training shall ensure competent, comfortable use of the software by staff. (Please call for pricing.)

F. Tree Manager Software Support

Included in the Tree Manager software package is 60 days of post-installation telephone support (not to exceed 10 hours) to answer questions and aid managers in the use of the software system. Support will also include on-line support via computer modem when necessary if the client system is properly equipped.

TASK 3: TREE MANAGEMENT PLAN

ACRT will prepare an Inventory Data Analysis and three different proposals for a Tree Management Plan for review by City of Lodi staff. The plan would include:

- The Goals of the Management Plan
- Survey Results
- Hazard Tree/ Safety Pruning Mitigation Plan
- Routine Maintenance and Planting Recommendations
- Tables and charts of tree species profiles for your City.
- An estimated annual cost to maintain the trees in your City.

The management plan will be based on the results of the inventory and on observations made while performing the data collection. Data collection procedures and approaches to the study will be described in detail.

The analysis will include presentations of tree species population density and diversity along with physical characteristics of the tree population (diameter, maintenance, etc.) Specific results of the inventory will be included in graphs, and summary tables within the report. The analysis of the results will be used to predict future trends for the City of Lodi's urban forest. The report will also provide an estimated dollar value of City trees to indicate the monetary benefit of the urban forest.

Tree and planting site data will be analyzed using computer summaries of species composition, size distribution, maintenance needs, and location. Relationships between these various parameters will be discussed in terms of management strategy and long term planning. Discussion of the results will include identifying trends, potential problems, favorable conditions, and recommendations to reduce future maintenance costs.

A five-year general vegetation maintenance program for each proposal will be presented to set priorities to the types of maintenance tasks to be accomplished. This replacement and removal program will be based upon the survey. This will include tasks to be completed, the quantity of vegetation requiring maintenance, the estimated person-hours, budgets, and the time of year when these tasks should be completed. Computer listings necessary for completing priority work will be included. ACRT will include a list of recommended tree species for planting in the City of Lodi.

ACRT, Inc., (Appraisal, Consulting, Research, and Training) is an international consulting service and training organization in the utility and urban forestry, arboricultural, environmental, natural resource, biological, and horticultural sciences. In 1978, Richard E. Abbott, ACRT's chairman and CEO, started the first national, commercial, urban forestry consulting firm in North America and, possibly, the world.

Since 1985, ACRT's Utility Services Group has provided contract foresters, tree and brush control operations preplanners and R/W maintenance inspectors to more than 100 electric utilities nationwide. Among the services are: prenotification/ permitting of tree owners for trimming and/or removal; line clearance work planning and scheduling; tree crew inspections and evaluations, and right-of-way management.

ACRT developed Utility Tree Manager™ for Windows® software for distribution and transmission management information systems. Also mapping of trees, poles or electric hardware using Global Positioning Systems (GPS) on distribution and transmission and integration with Utility Tree Manager.

ACRT is a leader in Tree Growth Regulator (TGR) application and research.

ACRT's Offices



Cuyahoga Falls, Ohio



Lodi, California

CITY COUNCIL

ALAN S. NAKANISHI, Mayor
PHILLIP A. PENNINO
Mayor Pro Tempore
SUSAN HITCHCOCK
EMILY HOWARD
KEITH LAND

CITY OF LODI
PUBLIC WORKS DEPARTMENT

CITY HALL, 221 WEST PINE STREET
P.O. BOX 3006
LODI, CALIFORNIA 95241-1910
(209) 333-6706
FAX (209) 333-6710
EMAIL pwdept@lodi.gov
<http://www.lodi.gov>

H. DIXON FLYNN
City Manager
SUSAN J. BLACKSTON
City Clerk
RANDALL A. HAYS
City Attorney
RICHARD C. PRIMA, JR.
Public Works Director

October 11, 2001

Mr. Ralph Nevill
ACRT, Inc.
P. O. Box 1540
Lodi, CA 95241-1540

SUBJECT: Urban Forest Issues – Maintenance Management of Public Trees

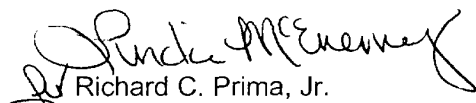
Enclosed is a copy of background information on an item on the City Council agenda of Wednesday, October 17, 2001. The meeting will be held at 7 p.m. in the City Council Chamber, Carnegie Forum, 305 West Pine Street.

This item is on the regular calendar for Council discussion. Please plan to attend to address any questions the City Council may have. George Bradley, City of Lodi Street Superintendent, will also be there.

If you wish to write to the City Council, please address your letter to City Council, City of Lodi, P. O. Box 3006, Lodi, California, 95241-1910. Be sure to allow time for the mail. Or, you may hand-deliver the letter to City Hall, 221 West Pine Street.

If you wish to address the Council at the Council Meeting, be sure to fill out a speaker's card (available at the Carnegie Forum immediately prior to the start of the meeting) and give it to the City Clerk. If you have any questions about communicating with the Council, please contact Susan Blackston, City Clerk, at 333-6702.

If you have any questions about the item itself, please call George Bradley at 333-6740.


Richard C. Prima, Jr.
Public Works Director

RCP/lm

Enclosure

cc: City Clerk ✓